

Court-Ordered Evaluations From a Mental Health Court

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Mental health courts (MHCs) have been in existence for more than 20 years, but little is known about the demographics, clinical features, and court outcomes of MHC defendants court-ordered for competence to stand trial (CST) evaluations. We examined these items in defendants who underwent CST evaluations for the Marion County, IN, MHC. The MHC defendants were significantly more likely than defendants referred from other courts to be male, black, unemployed, and on disability, and have a history of prior arrests and psychiatric treatment. MHC defendants found incompetent to stand trial (ICST) were significantly more likely to have a psychotic disorder and a high school education than MHC defendants found CST, and they were significantly less likely to have a mood disorder, to be on psychiatric medication, or to cooperate in forensic interviews. Evaluator concordance of primary diagnoses was linked to concordance of CST opinion. There were no significant differences in the outcome of charges between CST and ICST MHC defendants. This study highlights several important findings. First, evaluator concordance of diagnoses is linked to evaluator concordance of opinion. Second, the Marion County MHC functioned in a non-adversarial manner by not discriminating against defendants who were found ICST at the time of final judgment.

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From 1980 to 1992, the Marion County Superior Court, in Indianapolis, IN, established and operated the first special court in the United States for defendants with serious mental illness who were facing nonviolent misdemeanor or minor felony charges. Temporarily closed in 1992, the Marion County Mental Health Court (MHC) was revived in 1996, and it has functioned ever since.¹ MHCs operate on the philosophy of therapeutic jurisprudence. Also known as problem solving jurisprudence, it deviates from the traditional adversarial model of criminal court, characterized by generalized sentencing and incarceration, in favor of a cooperative model, where defendants receive deferred prosecution in exchange for participation in mental health treatment and frequent court appearances for status hearings. Since the inception of the Marion County MHC, similar courts have been established across the United States, with the number reaching nearly 400 by 2013.¹

MHCs were developed in response to the large number of individuals with mental illness who be-

come involved in the criminal justice system. The 2002 Criminal Justice/Mental Health Consensus Project concluded that “people with mental illness are falling through the cracks of this country’s social safety net and are landing in the criminal justice system at an alarming rate” (Ref. 2, p xii). In 2006, approximately 24 percent of individuals housed in jails and prisons had a serious mental illness,³ including up to 18.6 percent with depression, 4.3 percent with bipolar disorder, and 3.9 percent with schizophrenia.⁴ Furthermore, roughly 50 percent of inmates with serious mental illness are re-arrested after completion of their sentences.⁴ Defendants with serious mental illness enter a criminal justice system that is ill equipped to meet their health needs. Their presence in courts, jails, and prisons creates a heavy burden on the state and its citizens and has contributed to the rapid increase in spending on criminal justice programs, which has jumped 300 percent over the past 20 years.⁵

It is not surprising, then, that research on MHCs has focused on addressing the problems of a strained criminal justice system that inadequately manages mental health defendants. A PubMed search of the literature on MHCs yielded a total of 79 citations. A large proportion of these published articles targeted the effectiveness, criminal recidivism, court out-

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comes, and cost-analysis of MHCs. The Marion County MHC participated in a good example of this research, an ambitious multisite research project that studied the participants, practices, procedures, and outcomes of MHCs across the country for a period of years, including during part of the study period for our research project. The researchers found that the Marion County MHC had higher compliance rates with hearings and a higher graduation rate than the other three MHCs studied.⁶ Marion County MHC defendants also had lower rates of arrest and fewer days in jail in the 18 months after completion of the program, and their rate of arrest and number of days in jail were lower than those of persons involved with the other three MHCs, in the 18 months both before and after the program.⁷ The Marion County MHC used sanctions less frequently than the other three MHCs and never used a jail sanction, whereas the other courts all used jail sanctions.⁸ Successful completion of the Marion County MHC led to a 40 percent decrease in the total cost of mental health care and criminal justice involvement in the three years after graduation from the MHC.⁹

There is a growing body of literature on MHCs, but the PubMed search mentioned above led to only one adult study that examined the demographics, clinical features, and court outcomes of MHC defendants who had undergone court-ordered evaluations of competence to stand trial. To the best of our knowledge, this is the only study that investigated each of these elements. In 2005, Stafford and Wygant¹⁰ presented the results of their study of CST among MHC defendants from the Summit County MHC in Akron, OH. They properly noted that, for defendants to be eligible for an MHC, they must be CST, and identified CST as the “threshold issue that must be decided before an individual can be considered as a mental health court candidate” (p. 248). The authors studied 85 MHC defendants evaluated between 2001 and 2003 and analyzed 80 completed CST reports, with one evaluation per case. The majority of the Summit County MHC defendants were male (84.3%), black (65.1%), had never married (71.1%) and had fewer than 12 years of education (mean, 10.9 years). Almost two-thirds of them were on disability, 4.8 percent were earning a salary, and 16.5 percent were homeless. The authors found a 100 percent concordance between the evaluator’s opinion and the court’s decision on CST. Three-quarters (77.5%) of the Summit County MHC de-

fendants were found incompetent to stand trial (ICST) and 47 percent were restored to competence (RTC) within 50 days. When the Summit County MHC defendants found ICST were compared with those found CST, the ICST defendants were significantly more likely than CST defendants to have a diagnosis of a psychotic disorder (88.1% versus 38.9%) and significantly less likely to be diagnosed with a mood disorder (6.7% versus 27.8%) or personality disorder (23.3% versus 55.6%).¹⁰

The field reliability of multiple CST evaluations has been the subject of very few research publications. A review of the literature yielded studies from 1977, 1980, 1998 (two studies) and 2012. The 1977 publication showed disagreement in only 35 of 1071 cases (3.3%) from a New York City clinic where defendants were interviewed separately by two psychiatrists, each of whom prepared a report; 71 percent of the 1404 defendants evaluated between July 1975 and June 1976 were found CST, 5 percent were found ICST, and 24 percent were referred for inpatient evaluation because of an equivocal finding by the first psychiatrist who evaluated the defendant.¹¹ In the 1980 study, from Michigan, the authors found 100 percent agreement in 44 evaluations by pairs of psychologists when the evaluators conducted the CST interview together; 11.4 percent of the defendants were found ICST.¹² More useful data came from the 1998 publications, one from Utah¹³ and one from New York City.¹⁴ The Utah researchers reviewed 50 pairs of CST evaluations, mostly prepared by psychologists (80%) and psychiatrists (14%) and found agreement regarding CST opinions in 82 percent of the cases and regarding diagnostic category in 79 percent; 53 percent of the reports offered an opinion of ICST. The New York City paper analyzed the CST reports prepared by a court clinic for 188 defendants during the first six months of 1996; each defendant had two reports, but the authors noted “it is common practice for these evaluations to be conducted jointly,” so it is perhaps not surprising that the evaluators differed in their CST opinion in only one case. The only recent research in the area of concordance of CST opinions, published in 2012, came from Hawaii, where three evaluators (psychologists and psychiatrists) are appointed for competence and sanity evaluations. Gowensmith and his colleagues¹⁵ analyzed at least two initial CST reports for 182 defendants prepared during 16 months in 2007–2008; the evaluators agreed

in 70.9 percent of the cases, and the court agreed with the evaluators in 97 percent of the cases where the defendant was thought to be CST and in 100 percent of the cases where the defendant was felt to be ICST. When the evaluators disagreed, the court agreed with the majority (2 of 3) of evaluators in 78.3 percent of the cases. In reviewing the literature on MHCs, no studies were found that examined evaluator inter-rater reliability. A PubMed search yielded no results for the terms “mental health court” and “evaluator concordance” or “reliability.”

In Indiana, only psychiatrists and psychologists typically perform CST evaluations. The Indiana statute¹⁶ requires the appointment of two or three psychiatrists, doctoral-level psychologists, or physicians when the court believes a defendant “lacks the ability to understand the proceedings and assist in the preparation of the defense.” Given the state’s requirement for two evaluators, the MHC in Marion County provides an opportunity to compare rater agreements in diagnosis and competency opinion. The goal of this research was to examine the clinical features and demographics of MHC defendants referred for evaluation of CST and to determine the degree of concordance or inter-rater reliability between the clinical and CST opinions of the evaluators and the court decisions regarding CST.

Methods

The Marion County MHC ordered 107 defendants to undergo CST evaluations during the study period of 2007 through 2011. The study period was chosen based on the tenure of the judge who presided over the mental health court. Each of the 107 MHC defendants was evaluated by two mental health professionals. During the study period, four forensic evaluators (two psychiatrists and two psychologists) performed these evaluations. Copies of the reports prepared by the evaluators were obtained from three of the four evaluators after the purpose of the research was explained to them. The fourth evaluator, a psychiatrist, had destroyed the file copies of the 13 reports he prepared for the MHC upon his retirement. In addition, one of the psychologists was unable to find copies of six of his reports. Copies of 9 of the 19 missing reports were found in the archives of the Marion Superior Court, 7 for the psychiatrist and 2 for the psychologist, for a total of 97 pairs of reports. One of the defendants underwent pretrial evaluations of CST twice, a year apart for the same

charges, and 96 defendants were therefore included in the study population. The defendants were evaluated by one psychiatrist and one psychologist in 89 cases and by two psychiatrists in 7 cases.

Demographic data were collected from both reports for the 96 defendants, along with the charges, diagnoses, medical history, substance use history, and current psychiatric medications. There were gaps in the available information for some defendants, as some were not fully cooperative with the evaluation. Each defendant’s level of cooperation with the evaluation was assessed from the reports. Those who answered all questions were deemed fully cooperative, whereas those who answered some or none of the questions were categorized as uncooperative.

Three of the four evaluators consistently included diagnoses in their reports; one evaluator, a psychologist, did not. All of the defendants had at least one report that included a diagnosis. The psychiatric diagnoses used by the evaluators were based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR).¹⁷ The first diagnosis listed in each report was identified as the primary diagnosis. Each of the diagnoses identified by each evaluator was assigned to one of the following categories: psychosis, mood, anxiety, cognitive, substance use, and other. The cognitive disorders included intellectual disability, dementia, and borderline intellectual functioning. The presence or absence of a history of traumatic brain injury (TBI) was not consistently mentioned in the reports and was based on the self-report of the defendant. Concordance and inter-rater reliability (Cohen’s κ) of the primary diagnoses was assessed when each evaluator included a diagnostic impression in the report. Weighted κ was used for summarizing inter-rater reliability of diagnoses on a categorical scale. Furthermore, the concordance and inter-rater agreement of the primary diagnoses was analyzed in evaluator dyads: psychiatrist A and psychiatrist B and psychiatrist A and psychologist A.

The criminal charges of each MHC defendant were categorized as violent or nonviolent. The violent offenses found in the study population included battery, resisting law enforcement, criminal recklessness, pointing a firearm, and strangulation; all other charges were listed as nonviolent. The prior history of criminal offenses was obtained for each MHC defendant from a public database of Marion County

criminal cases¹⁸; prior charges were subdivided into histories of misdemeanor and felony charges.

Each evaluator's opinions regarding CST were tabulated for the 97 cases where both reports were available for analysis. The court's decision regarding each defendant's CST was obtained from a public database of Indiana court cases,¹⁹ which includes the chronological case summary (CCS) for each criminal case. The length of time required for restoration of defendants found ICST was estimated based on information from the CCS.

The demographic characteristics of the MHC defendants were compared with U.S. Census data from 2010 for Marion County, IN.²⁰ The clinical characteristics of the study group were also compared by the senior author with the clinical characteristics of a convenience sample consisting of all court-ordered evaluations of Marion County defendants, other than those referred by the MHC, during the study period ($n = 242$).

The frequency of opinions of CST and ICST were calculated for each evaluator, as was the frequency of concordance and inter-rater reliability (Cohen's κ) of opinion with the second evaluator and concordance with the court's final determination of CST. Concordance and strengths of inter-rater agreement was also examined for three evaluator dyads: psychiatrist A versus psychiatrist B, psychiatrist A versus psychologist A, and psychiatrist A versus psychologist B. The demographics and clinical characteristics of defendants found CST were compared with those of the MHC defendants who were found ICST.

Fisher's exact test for percentages was used for analyzing differences in the demographics of the study population, the demographics of CST and ICST defendants, court outcomes, and concordance rates. Q-Q plots were designed to assess whether defendant age and highest level of education followed normal distribution. The t test was used to analyze differences in means for variables with a normal distribution, and a nonparametric test, the Mann-Whitney U test, was used for variables that did not follow a normal distribution. Significance was set at $p < .05$.

This research project was reviewed by the Institutional Review Board of the Indiana University School of Medicine and was determined to be exempt.

Results

Demographics

MHC defendants who had court-ordered CST evaluations were significantly more likely to be male, black, unemployed, and on disability. They were significantly less likely to be Hispanic or to have graduated from high school or college, compared with U.S. Census data for Marion County from 2010 (Table 1). Three-quarters of the MHC defendants had never married, one-quarter were separated or divorced, and only one was married (Table 2). Over a quarter of the MHC defendants had been homeless before their arrest. Nearly all of the MHC defendants had a history of prior arrest (86.5%); felony charge (71.1%). Most of the study population had a history of psychiatric treatment (84.4%), nearly two-thirds were taking a psychiatric medication at the time of the evaluations, and nearly all of those on medication were taking an antipsychotic. Nearly half of the MHC defendants reported a history of traumatic brain injury.

Diagnoses

Nearly two-thirds of the MHC defendants were diagnosed with a psychotic disorder by at least one of the evaluators, and over half were thought to have a substance use disorder (Table 2). Diagnoses of cognitive disorder were also fairly common, but mood disorders were less common and anxiety disorders were rare; other disorders were diagnosed in 14.4 percent of the defendants. Three defendants (3.1%) were given a diagnosis of no psychiatric disorder by one evaluator.

In the 67 cases where both evaluators offered a diagnostic impression, the concordance of the evaluators' primary diagnoses was 74.6 percent and the inter-rater reliability (weighted κ) was .44 (Table 3). The evaluators often agreed with one another on pri-

Table 1 Demographics of CST Evaluatees from Mental Health Court vs. Other Criminal Courts

Characteristic	Marion County (%)	MHC Defendants (%)	p
Male	48.2	74.2	<.0002
White	62.7	34.0	<.0001
Black	26.7	63.9	<.0001
Hispanic	9.3	2.1	<.0001
High school graduate	84.9	42.7	<.0001
Employed	67.7	9.1	<.0001
On disability	10.3	64.3	<.0001

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Table 2 Demographics of Mental Health Court Evaluatees

Characteristic	Data Available (<i>n</i>)	<i>n</i>	%	CST		ICST	
				<i>n</i>	%	<i>n</i>	%
MHC defendants		96 ^a		45		52	
Mean age (years)	96	40.8			39.2		42.3
Male	96	71	74.0*	31	61.9	41	78.9
Race	96						
Black		61	63.5*	28	62.2	34	65.4
White		33	34.4*	16	35.6	17	32.7
Hispanic		2	2.1*	1	2.2	1	1.9
Marital status	74						
Never married		54	73.0	31	73.8	23	71.9
Divorced or separated		19	25.7	11	26.2	8	25.0
Married		1	1.4	0	0.0	1	3.1
Mean education (years)	81	11.1			10.8		11.3
<12 years		47	56.8	30	61.2†	17	44.7
12+ years		35	42.7*	14	31.8†	21	55.3
Had housing at time of arrest	73	53	72.6	27	73.0	26	70.3
Unemployed	76	69	90.8*	37	90.2	33	91.7
On disability	69	45	65.2*	25	65.8	20	62.5
Prior arrests	96	83	86.5	40	88.9	44	84.6
Misdemeanor only		24	28.9	14	35.0	11	25.0
Felony		59	71.1	26	65.0	33	75.0
Current charges	96						
Violent		45	46.9	22	48.9	23	44.2
Nonviolent		51	53.1	23	51.1	28	53.9
Prior psychiatric treatment	90						
Any prior treatment		76	84.4	41	93.2†	36	76.6
No prior treatment		14	15.6	3	6.8†	11	23.4
On psychiatric medication	84	54	63.1	34	75.6†	19	36.5
On an antipsychotic		49	90.7	31	68.9†	18	36.4
All diagnoses	97						
Psychotic disorder		65	68.4	25	55.6†	40	76.9
Substance use disorder		50	52.6	28	62.2	22	42.3
Cognitive disorder		25	26.3	11	24.4	14	26.9
Mood disorder		13	13.7	12	26.7†	1	1.9
Anxiety disorder		2	2.1	2	4.4	0	0.0
Other		22	14.4	17	37.8†	5	9.6
Traumatic brain injury	53	24	45.3	12	41.4	12	48.0
Cooperative with interview	97	77	79.4	41	91.1†	36	84.6

^a One MHC defendant was evaluated twice.

* $p < .05$ versus Marion County census data.

† $p < .05$.

mary diagnoses of psychotic disorders (76.0%, $\kappa = .58$) and cognitive disorders (75.0%, $\kappa = .74$), but the concordance for all other primary diagnoses was low (17.6%). However, when agreement attributable to chance was ruled out in substance, mood, and other disorders, these three diagnostic categories yielded different rates. Inter-rater reliability strength for mood disorders was moderate ($\kappa = .49$), whereas both substance ($\kappa = .23$) and other disorders ($\kappa = .38$) was fair. Pairs of rater dyads were measured for strength of agreement. For all diagnoses, psychiatrist

A and psychiatrist B had perfect strength of agreement ($n = 7$; weighted $\kappa = 1.0$), whereas the strength of agreement between psychiatrist A and psychologist A was only fair ($n = 70$; weighted $\kappa = .33$). The concordance of primary diagnoses was significantly higher among ICST defendants than among those found CST (61.5% versus 40.0%, $p = .04$), and concordant primary diagnoses of a psychotic disorder were also significantly more frequent among MHC defendants found ICST than CST (50.0% versus 26.7%; $p = .02$). After calculating the

Table 3 Concordance of Evaluator Primary Diagnosis

Diagnosis	<i>n</i>	Concordant (<i>n</i>)	Concordant Diagnoses (%)	κ
Two diagnoses (<i>n</i>)	67	50	74.6	.44*
Primary diagnosis (<i>n</i>)				
Psychotic disorder	50	38	76.0	.58
Cognitive disorder	12	9	75.0	.74
Substance use	7	1	14.2	.23
Mood disorder	6	1	16.7	.49
Other disorders	4	1	25.0	.38

* Weighted κ .

κ coefficient the differences in strength of agreement remained only when examining all primary diagnoses. The strength of agreement was moderate for ICST (weighted $\kappa = .47$), whereas strength of agreement was only fair for CST (weighted $\kappa = .38$). However, inter-rater reliability for defendants with a primary diagnosis of psychotic disorder was moderate for both ICST and CST groups ($\kappa = .52$ versus $.59$) (Table 4). In contrast, diagnostic discordance was higher in the CST group than the ICST group (22.2% versus 13.5%).

CST Versus ICST MHC Defendants

A few significant differences were seen when comparing the demographics and clinical features of MHC defendants who were found CST with those who were found ICST (Table 2). In an unexpected finding, MHC defendants with 12+ years of school were significantly more likely to be found ICST than those with <12 years of education (55.3% versus 44.7%, $p = .04$), and those with less than 12 years of education were significantly more likely to be found CST (61.2% versus 31.8%; $p = .04$); similarly, the ICST group averaged more years of education than the CST group, although the difference was not significant (11.3 versus 10.8 years; Z score -1.80 ; $p = .07$). A distribution of the highest level of education completed by CST and ICST defendants is depicted in Fig. 1. Psychotic disorders were significantly more common as a primary diagnosis among ICST defendants than CST defendants (76.9% versus 55.6%, $p = 0.3$). On the other hand, ICST subjects had significantly lower rates than those found CST of a primary diagnosis of a mood disorder (1.9% versus 26.7%, $p = .0005$), prior psychiatric treatment (76.6% versus 93.2%; $p = .04$) and taking psychiatric medication at the time of the evaluation (36.5% versus 75.6%, $p = .02$).

Forensic Evaluator CST Opinions

No significant difference in the pattern of each evaluator’s CST opinions was found, although the frequency of an opinion of CST ranged from 29.7 to 62.5 percent. (Table 5) The overall degree of concordance and inter-rater agreement between evaluator opinions was 74.0 percent and .46, respectively (Table 6). Evaluator dyad strength of agreement was moderate between psychiatrist A and psychologist A ($\kappa = .47$) and psychiatrist A and psychologist B ($\kappa = .47$) but only fair between psychiatrist A and psychiatrist B ($\kappa = .28$). Concordant CST opinions were significantly more likely among MHC defendants found ICST than those found CST (46.9% versus 27.1%; $p = .002$). The court agreed in every case ($n = 26$) when both evaluators deemed a defendant CST and agreed in 40 of 45 cases (88.9%) when both evaluators shared an opinion of ICST. However, when the evaluators disagreed regarding CST, no significant difference was found in the frequency of the court’s decision of CST (52.0%) and ICST (48.0%). When the evaluators disagreed on a defendant’s primary diagnosis (25.4%), the concordance of the CST opinions dropped to 55.6 percent, but this difference was not significant. However, when κ was calculated, strength of agreement on CST opinion dropped from moderate ($\kappa = .46$) to fair ($\kappa = .23$).

Court Outcomes

Overall, nearly half of the MHC defendants referred for CST evaluation ($n = 45$; 46.4%) were found CST, whereas just over half ($n = 52$, 53.6%) were found ICST. Defendants found ICST were very likely to be restored to competence; based on a

Table 4 Concordance of Evaluator Primary Diagnosis and Court Outcome

Diagnosis	<i>n</i>	CST (<i>n</i> = 45)		ICST (<i>n</i> = 52)	
		%	κ	%	κ
Concordant primary diagnosis	50	40.0*	.38	61.5	.47
Psychotic disorder	38	26.7*	.59	50.0	.52
Cognitive disorder	9	11.1	.79	7.7	.68
Substance use	1	0	.0	1.9	.48
Mood disorder	1	2.1	.21	0	†
Other disorders	1	0	-.05	1.9	1.0
Discordant primary diagnosis	17	22.2		13.5	

* $p < .05$.

† κ could not be calculated because no ICST defendants were assigned a mood disorder as a primary diagnosis.

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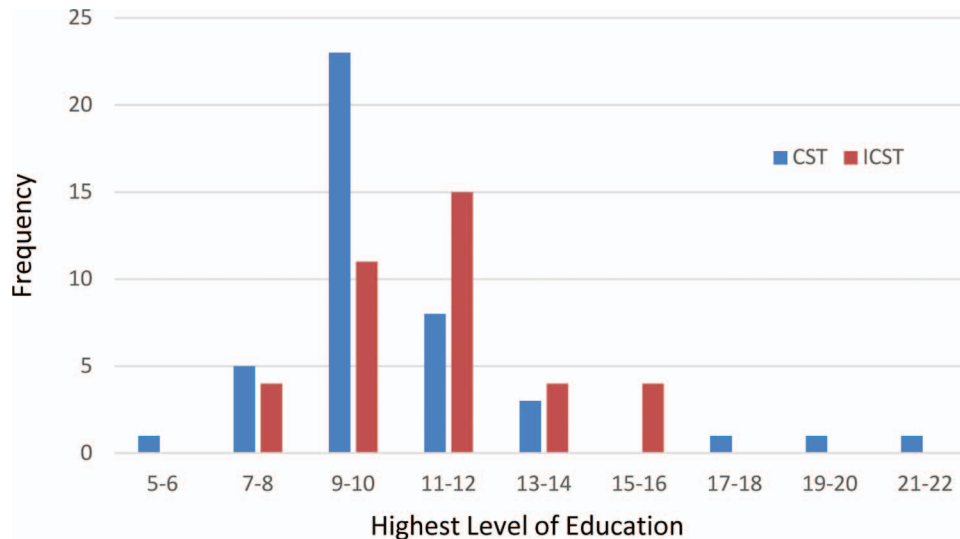


Figure 1. Education level of persons who are CST versus those who are ICST.

review of the CCS, 47 of the 52 ICST defendants (90.4%), were successfully restored, with 42 (80.8%) restored within six months. Mean and median restoration times were estimated to be 3.9 months and 3.0 months, respectively. Almost all of the charges faced by the defendants in the study group were either dismissed ($n = 50$; 51.5%) or were resolved by plea bargain ($n = 39$; 40.2%). A small number of defendants ($n = 7$; 7.2%) went to trial, where four were found guilty (4.1%) and three were found not guilty (3.1%). There was no significant difference in the proportions of CST and ICST defendants with regard to dismissal of charges (46.7% versus 55.8%) or plea bargain (40.0% versus 40.4%). On the public database of Indiana court cases, the CCS of one ICST defendant indicated he was released in 2010 after being restored to competence and failed to appear for his next hearing; there was a warrant out for his arrest as of January 2018.

Comparison to Defendants From Other Courts

The CST opinions and primary diagnoses of the MHC defendants were compared with the CST

opinion and primary diagnoses of all defendants evaluated by the senior author for other courts in Marion County during the study period (Table 7). There was a significant difference between the proportion of defendants found to be CST in the MHC compared with those found to be CST in all other courts (46.4% v. 77.3%; $p = .0001$). Several primary diagnostic categories were significantly more common among MHC defendants than among non-MHC defendants who underwent CST evaluations. Diagnostic categories included Psychotic disorders (68.4% versus 40.7%; $p = .001$), Substance use disorders (52.6% versus 10.0%; $p = .0001$), and Cognitive disorders (26.3% versus 13.3%; $p = .01$).

Discussion

The data collected from the MHC in Marion County, IN highlight several important findings. The first comes from the analysis of demographic and clinical features, which showed that defendants

Table 5 Frequency of Competence Opinions Among Evaluators

Evaluator	<i>n</i>	CST Opinion	ICST Opinion	Court Agreement
1	95	43.2	56.8	88.4
2	64	29.7	70.3	76.6
3	26	46.2	53.9	73.1
4	8	62.5	37.5	62.5

Opinion and agreement data are expressed as percentages.

Table 6 Concordance of 96 Evaluator Opinions

Opinion	<i>n</i>	%	Court Decision (%)	
			CST	ICST
Evaluators agreed	71	74.0*		
Both opinions ICST	45	46.9†	11.1‡	88.9
Both opinions CST	26	27.1†	100‡	0
Evaluators disagreed	25	26.0	52.0	48.0

* $\kappa = .46$.

† $p < .01$, ICST versus CST.

‡ $p = 0.0001$.

Table 7 Primary Diagnoses in MHC Defendants Versus Defendants From Other Courts

Diagnosis	Mental Health Court ^a (%; n = 97)	All Other Courts (%; n = 242)
Psychotic disorder	68.4*	40.7
Cognitive disorder	26.3*	13.3
Substance use disorder	52.6*	10.0
Mood disorder	13.7	11.2
Other diagnosis	14.4	15.4

^a Primary diagnosis from either evaluator.

* $p \leq 0.01$.

who were court ordered to undergo a CST evaluation from a MHC were typically middle-aged black males with a diagnosis of a psychotic disorder who had never married, had not completed high school, had a history of prior arrests, had housing, were unemployed, and were on disability. Other common features for the average MHC defendant included a history of psychiatric treatment and substance use and the use of psychiatric medication at the time of the interview, specifically an antipsychotic drug. Given the social problems currently addressed in the media, this study complements the growing concerns regarding racial inequality.

The finding that a disproportionate number of black defendants were referred for CST evaluation from the Marion County MHC (63.5%) even though African-Americans represent only 26.7 percent of the county population, highlights the growing concern of racial disparity when it comes to arrests and incarceration. In the United States, African Americans comprise roughly 12 percent of the population, yet represent nearly 40 percent of the inmates.^{21,22} Resources and education targeting this critical question must be addressed.

The second goal of the study was to take advantage of Indiana's requirement that at least two evaluators be appointed when the question of CST is raised. We found several patterns in the concordance of evaluators' diagnoses and CST opinions. The overall rate of shared CST opinions was fairly high (74.0%) and was consistent with prior reports. In this study, the degree of agreement was higher for ICST opinions than for CST opinions (46.9% versus 27.1%). CST evaluations have been shown to have high levels of field reliability and among the various forensic evaluations, they are considered to be one of the most reliable.^{23,24} Inter-rater reliability appears to be particularly high in cases where evaluators have received similar training using structured CST instruments,²⁵

whereas weaker associations of agreement have been found between individual evaluators in the community.²³ Three of the previous reliability studies showed rates of concordance from 96.7 to 100 percent. One study involved evaluators who likely trained and worked in the same institution,¹¹ whereas the other two studies examined evaluators who conducted, or likely conducted, the forensic interview together.^{12,14} Therefore, it is not surprising that these studies yielded high concordance rates on CST opinion. This present study involved four different evaluators (two psychiatrists and two psychologists) who worked independently in the community. The studies from Utah and Hawaii used independent evaluators and yielded concordance rates of 79 and 70.9 percent, respectively.^{13,15} This rate closely mirrors the rate of concordance in our study. However, there was a difference in κ coefficient. This study yielded a κ coefficient of .46 in comparison to the Utah ($\kappa = .64$) and Hawaii ($\kappa = .65$) studies. Examining the different rater dyads did not account for the lower inter-rater reliability, as each dyad had a κ coefficient $< .5$. The Hawaii study examined rater triads, which may have contributed to a difference of inter-rater reliability, although one would think having more evaluators for each defendant would make it more difficult to reach agreement. On the other hand, the Utah study involved only two evaluators per defendant. The sample size of this study was much smaller, nearly half ($n = 50$) in comparison to this study ($n = 96$). To the best of our knowledge, this study represents the largest sample size of a two-evaluator reliable study test which did not involve raters who either trained together, worked together, or conducted the interviews at the same time. Our study suggests that rates of agreements for CST opinion may not be as high as previously indicated, especially in settings where forensic evaluators work independently in the community.

An essential task of CST is analyzing the relationship between psychiatric symptoms and functional ability,²⁶ which was examined in this study. The overall rate of concordance for primary diagnoses (74.6%) was very similar to the concordance rate for CST opinions, and the concordance of diagnosis affected the rate of concordance of opinion, for when evaluators disagreed with the diagnosis (25.4%), the frequency of shared CST opinions dropped to 55.6 percent, supporting a link between psychiatric symptoms and overall competence.

Other studies have shown a >90 percent agreement between forensic evaluator opinions and court CST decisions.^{10,27–29} Overall, the Marion County MHC agreed with evaluator opinions at a similar rate (93%), but five defendants whom both evaluators deemed ICST were ultimately adjudged CST by the court. It is unclear why the court did not agree with the evaluators' ICST opinions in these five cases, as the CCS did not provide any additional insight into this matter; research has shown that a judge's determination of CST can be swayed by a variety of variables, including negotiations made by lawyers and implicit bias,³⁰ which may explain why these five defendants were determined to be competent by the court. Gowensmith *et al.*¹⁵ also noted that, in situations where the court may disagree, judges have to make difficult decisions concerning defendants with significant deficits who are unlikely ever to be restored to CST.

Only a few significant differences were noted between the MHC defendants who were found CST and those who were found ICST. As expected, the ICST group had a higher rate of psychotic disorders, consistent with prior research showing an increased risk of ICST in defendants with psychotic disorders.¹⁰ We were not surprised that MHC defendants deemed ICST were also less likely to have prior psychiatric treatment, less likely to be receiving psychiatric medication at the time of the interview, and less likely to be fully cooperative with the interview. One unexpected finding was the significant difference in levels of education between the two groups. The level of education found in Marion County MHC defendants referred for CST evaluation was consistent with the level found in MHC defendants referred for CST evaluation in Summit County, OH, as both groups were found to average less than 12 years of education. It was assumed that a lower level of education would be associated with an increased risk of ICST. Instead, Marion County MHC defendants found ICST had more years of education than those found CST, and there was a higher frequency of 12+ years of education in the ICST group and a higher frequency of <12 years of education in the CST group. A possible explanation is that, of the 15 defendants who did not have information on their educational level, 14 were later found ICST. Of these 14 ICST defendants, 12 had a psychotic disorder diagnosis, 1 had autism, and 1 had intellectual disability. Overall, 34 of the 52 ICST defendants car-

ried a diagnosis of psychotic disorder, cognitive disorder, or autism. The mean (11.1 years) and the median (11.5 years) levels of education for these 34 defendants were still higher than those of the CST group. The distribution of the highest level of education for the ICST and CST groups showed that the CST levels did not have a normal distribution. When the means of both groups were compared by Mann-Whitney *U* test to account for lack of normal distribution, there was no significant difference between the two ($p = .07$). As expected, more defendants with graduate education (16+ years) were found CST, but a large number of CST defendants were found to have less than a 10th grade education. Using the prevalence of 12+ years of education for the entire group (42.7%), 8 of the 14 ICST defendants would be assigned to the <12 years group and 6 to the 12+ years group, with 1 defendant, most likely with 12+ years of education, assigned to the CST group. However, contingency table analysis of these numbers again yielded a finding of significance.

Analysis on competence restoration and court outcomes showed that MHC defendants were restored to competence at a high rate (90.4%) and were not discriminated against when they were sentenced after RTC. Only five ICST defendants were deemed not restorable, and nearly all of the RTC defendants (90.4%), were restored within 6.0 months, with the average length of restoration being 3.9 months. This finding is consistent with other studies that have shown rates of 75–90 percent for competence restoration.^{24,31,32} The higher level of education in the ICST group is likely to have contributed to the very high rates of restoration. At an Illinois Mental Health and Development Center, higher education was one of the variables observed to correlate with successful restoration.³³ Looking at final judgments for each of the defendants, it can be concluded that the court did not discriminate against either the CST or ICST group, because no significant differences were found in frequency of dismissals, pleas, or verdicts of guilty or not guilty. This finding is important, because MHCs are designed to be problem-solving courts, in contrast to the adversarial model found in criminal courts. By not discriminating against those defendants found ICST, the Marion County MHC adheres to the principles designed for the traditional MHC.

Finally, defendants referred to the Marion County MHC were significantly more likely to be found

ICST than defendants in all other courts. This association is most likely related to higher rates of psychotic disorders found in MHC defendants (68.4%) in comparison to non-MHC defendants (40.7%), which is consistent with prior research indicating an increased risk of ICST in individuals with psychotic disorders.¹⁰ Evaluator training or experience is unlikely to have influenced the increased ICST rates in the MHC population because the Indiana statute only allows psychiatrists and doctoral-level psychologists to perform competency evaluations, limiting the number of practicing professions conducting these evaluations.¹⁶ Furthermore, only a small number of forensic evaluators in Marion County are involved in competency evaluations, so it is likely that the evaluators involved in the MHC also conducted evaluations for non-MHC courts.

Limitations

There are several important limitations to this study. First, is the question of reproducibility in other counties across the United States. According to the U.S. census data for Marion County white people represent most of the population, whereas black people represent roughly a quarter of the population. Minority groups other than African Americans were either rarely represented or were not represented at all, in the Marion County MHC. Therefore, it is unclear how the data would translate to other minority groups. Second, this study had a smaller sample size than those in other evaluator agreement studies for CST,^{11,14,15} which may have contributed to the relatively low concordance rates and κ coefficients. Third, not all demographic information and clinical features could be retrieved for each of the defendants, which could account for significant differences between groups, such as the education discrepancy. Fourth, rater dyads were not evenly distributed throughout the study period, which most likely contributed to the significant difference in rater agreement when examining CST opinions.

Conclusion

MHCs have been in existence for over 20 years; however, there are limited data about the demographics, clinical features, and court outcomes of MHC defendants, and information regarding concordance of clinical and CST opinions is even less common. Paired forensic evaluator reports for 97 defendants from the Marion County MHC indi-

cated that participants were most likely to be male, black, and unemployed; to have a psychotic disorder; and to have a history of previous arrests and psychiatric treatment. Most of the defendants were found ICST. Significant concordance was found for both evaluators' diagnosis and opinion, with concordance being higher for psychotic disorders and ICST opinion. No significant difference in court outcomes between the CST and ICST was found. This study provides valuable insight into the attributes of individuals who were court-ordered for a competency evaluation in an MHC. In comparison to defendants who underwent a CST evaluation in other Marion County courts during this period, MHC defendants were more likely to be found ICST and have a primary psychotic disorder. Furthermore, the examination of clinical and CST opinion concordance and the relationship between clinical opinions and CST evaluator opinions demonstrated how diagnosis can influence CST opinion.

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